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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/517,338

12/09/2004

Sven Ole Warnaar

2923-672

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02/05/2009

ROTHWELL, FIGG, ERNST & MANBECK, P.C.

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SUITE 800

WASHINGTON, DC 20005

EXAMINER

HALVORSON, MARK

ART UNIT

PAPER NUMBER

1642

NOTIFICATION DATE

DELIVERY MODE

02/05/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-PAT-Email@rfem.com

|                              |                                      |                                       |  |
|------------------------------|--------------------------------------|---------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/517,338 | <b>Applicant(s)</b><br>WARNAAR ET AL. |  |
|                              | <b>Examiner</b><br>Mark Halvorson    | <b>Art Unit</b><br>1642               |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11/19/2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,9,10,12 and 15-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,9,10,12 and 15-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

Claims 1, 2, 4, 9, 10, 12 and 15-19 are pending and under examination.

#### ***35 USC § 103(a) rejections maintained***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The rejection of claims 1, 2, 4, 9, 10, 12 and 15-18 and new claim 19 under 35 U.S.C. 103(a) as being unpatentable over Bleumer et al., in view of Pavone et al is maintained.

Claim 19 is drawn to a method for the treatment of renal cell cancer consisting essentially of co-administering an anti-tumor antibody directed against the MN antigen, wherein said antitumor antibody is a chimeric or humanized G250 antibody or a fragment thereof and a cytokine to a subject in need thereof, where the cytokine is IFN- $\alpha$  and is administered continuously or repeatedly in a low-dose form, wherein the low-dose cytokine comprises a dose which is pharmaceutically effective in the absence of NIC CTC toxicity grade 3 or higher.

The transitional phrase "consisting essentially of" in claim 19 is interpreted as being equivalent to the transitional phrase "comprising". MPEP 2105 states that

For the purposes of searching for and applying prior art under 35 U.S.C. 102 and 103, absent a clear indication in the specification or claims of what the basic and novel characteristics actually are, "consisting essentially of" will be construed as equivalent to "comprising." See, e.g., PPG, 156 F.3d at 1355, 48USPQ2d at 1355.

Applicants argue that Bleumer does not disclose a combination therapy comprising administration of both IFN- $\alpha$  and G250 but refers to a monotherapy with

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G250 antibody in order to evaluate both the safety and the response of RCC patients to a treatment with G250. Applicants contend that Bleumer only teaches monotherapy of RCC by administering G250 antibody. Applicants argue that Pavone does not cure the deficiencies in Bleumer as Pavone discloses low doses of recombinant IL-2 and recombinant IFN- $\alpha$  induce a repeated and significant extension of CD3-CD56+ cells, which cells exhibit one of the most important lymphocyte subsets for the immune response to tumoral mass. Applicants argue that Pavone does not suggest or disclose that the combination of low doses of recombinant IL-2 and recombinant IFN- $\alpha$  are suitable for treating RCC. Pavone does not provide any data regarding the development of the patients' tumor mass following treatment with low doses of recombinant IL-2 and recombinant IFN- $\alpha$ . Therefore, Applicants contend that Pavone does not teach a combination of low doses of recombinant IL 2 and recombinant IFN- $\alpha$  suitable for the treatment of RCC.

Applicants arguments have been considered but are not persuasive. In response to Applicants arguments that Bleumer does not disclose a combination therapy comprising administration of both IFN- $\alpha$  and G250, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In response to Applicants arguments that Pavone does not suggest or disclose that the combination of low doses of recombinant IL-2 and recombinant IFN- $\alpha$  are suitable for treating RCC, as previously discussed, Pavone et al disclose that twenty-seven patients with advanced renal cell carcinoma were treated with IL-2 and IFN- $\alpha$  (page 83 1<sup>st</sup> column). Pavone et al use measurement of reproducible immunological effects as a measure of efficacy of treatment. (page 83 2<sup>nd</sup>, column, page 85, 2<sup>nd</sup> column). Pavone et al disclose that treatment with low doses of IL-2 and IFN- $\alpha$  resulted in negligible toxicity. (Id). Thus, IL-2 and IFN- $\alpha$  were pharmaceutically effective in the treatment of patients with advanced renal cell carcinoma. It is noted that the claims do not require a decrease in tumor mass. Furthermore, Applicants have not demonstrated that Pavone et al's measure of

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pharmaceutical effectiveness is patentably distinct from Applicants measure of pharmaceutical effectiveness

Applicants argues that combining Pavone and Bleumer would result in a composition comprising G250 antibody, recombinant IFN- $\alpha$  in a low dose form and recombinant IL-2 in a low dose form. Applicants argue that since Pavone does not provide any indication that the described immunological effect would also be achieved by single administration of recombinant IFN- $\alpha$  in a low dose form (i.e. without additionally administering recombinant IL-2 in a low dose form), a person skilled in the art cannot arrive at a method for treating RCC comprising coadministering G250 antibody and IFN- $\alpha$  as the only active ingredients, as required by the present invention.

Applicants arguments have been considered but are not persuasive. The use of the transitional phrase “consisting essential of “ and “comprising” are open and thus claims comprising the administration of G250 antibody and IL-2 and IFN- $\alpha$  read on claims comprising the administration of G250 antibody, IFN- $\alpha$  and IL-2.

### ***Summary***

Claims 1, 2, 4, 9, 10, 12 and 15-19 stand rejected

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Halvorson, PhD whose telephone number is (571) 272-6539. The examiner can normally be reached on Monday through Friday from 8:30am to 5 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shanon Foley, can be reached at (571) 272-0898. The fax phone number for this Art Unit is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mark Halvorson  
Patent Examiner  
571-272-6539

/MISOOK YU/  
Primary Examiner, Art Unit 1642